REMARKS

I. Introduction

In response to the Office Action dated August 28, 2001, please consider the following remarks. Re-examination and re-consideration of the application, as amended, is requested.

II. Allowed Claims

In paragraph (2), the Office Action indicates claims 2-8 and 28 are allowable. The Applicants acknowledge this statement of allowability, but traverse the rejection of the rejected claims.

III. The Cited References and the Subject Invention

A. The Kalra Reference

U.S. Patent No. 5,953,506, issued September 19, 1999 to Kalra et al. discloses an apparatus and method for encoding, storing, transmitting and decoding multimedia information in the form of scalable, streamed digital data. The data streams of interest include a base data stream (of base informational content or resolution) and one or more additive data streams (having additional data content, presumably of higher resolution). As the Office Action acknowledges, the data streams are not provided according to different protocols. Rather, they represent additive data similar data of different resolutions and are provided under a single protocol.

B. The Beckerman Reference

U.S. Patent No. 6,029,200, issued February 22, 2000 to Beckerman et al. discloses an automatic protocol rollover in streaming multimedia data delivery system. Unlike the Kalra reference, the Beckman reference at least addresses the problem of handling different protocols. However, the Beckerman reference handles protocol differences in an entirely different way than the Applicants' invention. The Beckerman reference teaches the use of a reference file. The reference file includes resource specifiers for attempting communication according to different protocols. The reference file also includes information describing which protocols should be attempted first when attempting communications.

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IV.   Office Action Prior Art Rejections

In paragraph (4), the Office Action rejected claims 1, 10-21, 23-27, and 29-32 under 35 U.S.C. § 103 unpatentable over Kalra et al., U.S. Patent 5,953,506 (Kalra) in view of Beckerman, U.S. Patent No. 6,029,200 (Beckerman). Applicants respectfully traverse these rejections.

<u>With Respect to Claims 1, 19, and 29</u>: Kalra teaches sequentially appending additive data streams of the same protocol into a single segment. It does not teach sequentially appending streams of data according to each subsequent version of a streaming protocol into a single segment. Beckerman teaches a system that addresses the issue of handling different data protocols, but the disclosed system handles different protocols in an entirely different way than the Applicants' invention. Beckerman essentially adopts a "brute force" solution in which the protocol information is described in a reference file, and communication is attempted using each of the protocols in the reference file, in an order that is also described in-the reference file.

Kalra does not address the issue of different protocols at all. All it teaches is transmitting a data stream with additive components of increasing resolution. Nor does it provide any incentive, any teaching, or any reason whatsoever to do so. The Office Action indicates that one skilled in the art would be motivated to incorporate streaming multimedia using different protocols to "utilize the combination of streams for encoding, storing, transmitting, and decoding a multimedia system." However, the Kalra reference already uses a combination of streams for encoding, storing, transmitting, and decoding a multimedia system." It however, does not permit those data streams to have different protocols. And why should it? The focus of the Kalra reference is transmitting data of differing resolution to computer systems that can utilize the additional resolution. Nowhere does the Kalra reference even remotely suggest that the disclosed method be used with different protocols. In fact, the protocol used in the preferred embodiment of the Kalra reference (MPEG encoding) is quite detailed in application and utterly incompatible with non MPEG-compliant coding techniques.

The Office Action also indicates that one skilled in the art would be motivated to modify Kalra to handle different protocols for each stream because doing so would "improve data delivery on the multimedia network." Of course, the same "motivation" could be used to reject any improvement on any data transmission system. The issue is whether one skilled in the art would do

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so using the technique described in the Applicants' claim 1, and this is certainly not the case. Insofar as dealing with protocols and not additive data, the Kalra and Beckerman references would teach one of ordinary skill in the art to handle different protocols the way the Beckerman reference does it … by use of a reference file having protocol information. For all these reasons, the Applicants respectfully traverse the rejection of claim 1.

<u>With Respect to Claims 13, 24, and 30</u>: According to the Office Action, claims 13, 24, and 30 include limitations similar to those of claim 1, except the step of testing, prior to receiving each additional stream of data, whether an end of the data segment has been detected, and if so, terminating reception of the data segment prior to receiving the additional stream of data according to the selected version. According to the office action, these limitations are disclosed in Beckerman as follows:

> In accordance with the invention, a hyperlink to multimedia content is actually an indirect link to a reference file. The reference file contains a plurality of different resource specifiers and a preferred order for attempting communications using the resource specifiers. Each resource specifier designates a transport protocol.
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> FIG. 4 shows an example reference file 40. Its first line consists simply of the string "[reference]". Following this line are one or a plurality of additional lines, each containing a different resource specifier in standard network URL format. The order of the resource specifiers establishes a preferred order for attempting communications with the resources specified by the resource specifiers. Each resource specifier is preceded by an identifier of the form "Ref#=URI,". The # part of the identifier indicates the preferred order for attempting communications. For example, Ref1 is before Ref2. Alternatively, the reference file can specify the preferred order by referencing another file that in turn contains a specification of resources in their preferred order.
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> FIG. 6 shows an example of a reference file 70 containing a resource specifier with an "mms" protocol specifier as well as other resource specifiers. Suppose in conjunction with this example that the client has configured player 38 to allow only the HTTP protocol. The first resource specifier in reference file 70 contains the "mms" protocol specifier, meaning that the client should try the UDP/IP, TCP/IP, and HTTP transport protocols, in that order. However, the mms protocol specifier does not override the user's settings, so HTTP is the only protocol attempted in response to the first resource specifiers. If this is not successful, the player responds to the next line which has a protocol specifier equal to "mmu". This indicates that the player is to try a UDP/IP connection regardless of the user preferences. Thus, the server can override the client settings, and sometimes force a connection even when the client settings would have prevented such a connection.
>
> In accordance with other aspects of the invention, a step is performed of retrieving a resource reference or reference file from a network source. This is preferably performed in response to a user selection, such as activation of a hyperlink that specifies the reference file as its target. The reference file contains a plurality of different resource specifiers and a designated order for attempting communications using the resource specifiers. Each resource specifier designates a streaming data resource and an associated transport protocol.
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> A further step in accordance with the invention comprises repeatedly attempting to establish a streaming data connection using the different resource specifiers, in the designated order, until a streaming data connection is successfully established. Each attempt with a different resource specifier uses the streaming data resource and the associated transport protocol designated by that different resource specifier. Once a connection has been successfully made, the player renders the received multimedia content in video and/or audio format.
>
> If a particular resource specifier has a protocol specifier having a predefined value ("mms"), a step is performed of repeatedly attempting to establish a streaming data connection with the streaming data source specified by said particular resource specifier until a streaming data connection is successfully established. Each attempt uses a different transport protocol in a predetermined order or sequence that is not configurable by the user.

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The Applicants fail to see where the limitations of claim 13, 24, and 30 are disclosed in the foregoing passages. The Beckerman reference does not disclose testing to determine whether an end of a data segment has been detected, and if so terminating the reception of the data segment prior to receiving an additional stream of data.

V.   Dependent Claims

Dependent claims 10, 11, 12, 14-18, 20-21, 23, 25-27, and 31-32 incorporate the limitations of their related independent claims, and are therefore patentable on this basis. In addition, these claims recite novel elements even more remote from the cited references.

For example, Claim 10 recites that no additional tags are embedded in the data segment between the begin and end tags. The Office Action indicates that this is a matter of design choice, but the Applicants disagree. It would seem that the simplest way to implement a plurality of data segments, each having a different protocol, would be to use tags between each data segment to identify the protocol of the data that follows.

Further, with respect to claim 11, the Office Action indicates that the Kalra-Beckerman references disclose determining if the data segment is stored in a current context, and if so, transmitting an alias tag in lieu of the data segment, and if not, storing the data segment in the current context. These limitations are said to be disclosed in the following passage:

> The *.asx files are referred to generically herein as reference files. Such files are made available from network servers 14, and are preferably integrated into the WWW. Hyperlinks to the reference files are placed in Web documents, and a user retrieves a particular reference file by clicking on its hyperlink. In response, the user's Internet browser retrieves the reference file from the server or other network source and opens it with player 38. Player 38, in turn, uses the reference file to establish a streaming data connection which the player then renders.
>
> FIG. 4 shows an example reference file 40. Its first line consists simply of the string "[reference]". Following this line are one or a plurality of additional lines, each containing a different resource specifier in standard network URL format. The order of the resource specifiers establishes a preferred order for attempting communications with the resources specified by the resource specifiers. Each resource specifier is preceded by an identifier of the form "Ref#=URI,". The # part of the identifier indicates the preferred order for attempting communications. For example, Ref1 is before Ref2. Alternatively, the reference file can specify the preferred order by referencing another file that in turn contains a specification of resources in their preferred order.

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The Applicants do not understand how the foregoing passage discloses the elements of Applicants claim 11. Accordingly, the Applicants traverse this rejection.

VI.   Conclusion

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectively solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicants' undersigned attorney.

Respectfully submitted,

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By their attorneys,

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